APRIL/MAY 2024

DCA22/GCA22 — RELATIONAL DATABASE MANAGEMENT SYSTEM

Time: Three hours

Maximum: 75 marks

SECTION A — $(10 \times 2 = 20 \text{ marks})$

Answer ALL questions.

- 1. What is meant by tuple?
- 2. Who is database administrator?
- 3. Write down the syntax for UNION operator.
- 4. What is meant by Relational Dependency?
- 5. State the importance of Foreign key?
- 6. Write down the syntax for inserting rows in a table in SQL.
- 7. Define a Cursor. What are its types?
- 8. Give any two examples for PL/SQL built in functions.
- 9. Compare SQL and NoSQL.
- 10. What are the advantages of MongoDB?

SECTION B — $(5 \times 5 = 25 \text{ marks})$

Answer ALL questions.

11. (a) Discuss the components of DBMS.

Or

- (b) Write short notes on Hierarchical model.
- 12. (a) Expound traditional operators in Relational Algebra.

Or

- (b) Give a brief note on Third normal form.
- 13. (a) Illustrate the importance of NOTNULL and CHECK constraints in SQL.

Or

- (b) Expound additional database objects in SQL.
- 14. (a) Discuss PL/SQL subprograms.

Or

- (b) Write a note on PL/SQL essential features.
- 15. (a) What are the advantages of NoSQL?

Or

(b) Comment on Transactional application in NoSQL.

SECTION C — $(3 \times 10 = 30 \text{ marks})$

Answer any THREE questions.

- 16. Describe the three level architecture with a neat diagram.
- 17. Explain the concept of Relational database design.
- 18. Expound Sub queries in SQL with examples.
- 19. Explain the PL/SQL built in functions.
- 20. Compare Web scale application with Computation application in NoSQL.